

INFORMATION SHEET  
MILLENNIUM HOLDINGS, LLC.  
RISING STAR WASTE ROCK CONTAINMENT FACILITY  
SHASTA COUNTY

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ORDER NUMBER \_\_\_\_\_  
MILLENNIUM HOLDINGS, LLC.  
CLOSURE OF THE RISING STAR WASTE ROCK  
CONTAINMENT FACILITY  
SHASTA COUNTY

The Rising Star Mine is one of two neighboring inactive copper mines in the East Shasta Copper Mining District in central Shasta County near Shasta Lake, approximately 10 miles northeast of Shasta Dam.

The Rising Star and Bully Hill Mines were initially worked for gold and silver in the early 1860's. In the late 1800's through 1927, copper, and zinc were also mined. Although exploratory work was performed in the area in the 1950's, there has been no production since 1927. The extraction of ore from the mines resulted in extensive development of underground workings, creation of large waste rock dumps, and tailings piles at the nearby Bully Hill Smelter. The mine workings and waste rock dumps are the principal sources of low pH, metal laden discharges referred to as acid rock drainage (ARD).

ARD historically discharged from the lower portals of the Rising Star Mine which have been recently plugged; however ARD continues to seep from the bedrock and enter surface waters. This discharge is regulated by Waste Discharge Requirements Order No. R5-2003-0039 (National Pollution Discharge Elimination System (NPDES) Permit No. CA0084212), and Cease and Desist Order No. R5-2003-0051. The C&D Order requires, in part, the Discharger to conduct remedial actions to abate the impact of ARD from historic mining activities at the Bully Hill and Rising Star Mines. The two main mine portals of the Rising Star Mine were sealed by the Discharger in 2004, appreciably reducing ARD discharges to surface waters. The Discharger, in complying with the C&D Order is proposing to construct the waste rock containment facility to continue its remedial activities at the site.

The objective of the proposed 2-acre waste rock containment facility is to abate impacts of ARD from historic mine waste rock dumps to the surface waters. Abatement will be accomplished by relocating several smaller waste rock piles to the largest pile, and covering the waste rock with a engineered low permeability cap to prevent infiltration of precipitation. The design of the waste rock containment facility was prepared in accordance with applicable regulations governing the handling of mining waste materials contained in California Code of Regulations, Title 27 (Title 27).

Groundwater beneath the site is found minor quantities in fractures of the Bully Hill Rhyolite. Ground water quality in the immediate area of the waste rock disposal unit is of poor quality due to the oxidation of natural sulphide deposits. Excluding monitoring

wells, there are no known wells within a radius greater than one mile from the site. Due to current land uses (the site is surrounded by National Forest), zoning, and remote access, the use of groundwater for domestic, municipal, or agricultural supply is not anticipated in the foreseeable future.

The Discharger has provided documentation pursuant to Section 22470(c), Title 27 that 1) due to the nature of the bedrock underlying the site there is limited ground water and it is of poor quality, 2) the ground water that is present is limited in extent and cannot migrate to areas where it can contaminate ground water suitable for agricultural, domestic, or municipal beneficial uses, and 3) a contingency plan is in place to collect any seepage that may issue from the waste pile and treat it so as to protect surface water. Therefore, the waste rock disposal cell may be exempted from liners and leachate collection systems per Section 22470(c), Title 27.

The construction of the waste rock containment facility is a remedial activity being implemented in an effort to reduce the discharge of pollutants to surface water and groundwater. As such, the Categorical Exemption for compliance with CEQA as described in California Code of Regulations, Title 14, Section 15330, *Minor Actions to Prevent, Minimize, Stabilize, Mitigate or Eliminate the Release or Threat of Release of Hazardous Waste or Hazardous Substances* is applicable.

Surface water drainage is to an un-named tributary to Horse Creek which drains to Shasta Lake.